OCCUPATIONAL THERAPY

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V. OCCUPATIONAL THERAPY

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The program of Occupational Therapy for the Blinded at the U. S. Naval Hospital, Philadelphia, was established to aid the patient to readjust and to find new ways of coping with his environment. Primary among human needs is the urgency to exercise some degree of control over one's life and surroundings. Probably one of the most demoralizing fears which beset a newly blinded person is that he may no longer be independent, that is, no longer be able to command his usual degree of control over his environment. Accordingly he must learn to develop to a greater extent the use of other sensory capacities, mainly the auditory and the tactile responses. Much of the work in Occupational Therapy is designed to aid this development of hypersensitivity. Herein are presented the principles, procedures and basic activities of our program for the newly blinded person, as exemplified in the management of 157 blinded sailors and Marines admitted to the Rehabilitation Service in this hospital.

PRINCIPLES

Several specific principles fundamental to the blinded person's task of readjustment may be adduced. Occupational therapy does much to develop manual skills and finger dexterity. For the man who plans to go into a factory or machine shop job, or for the man who wants to be useful about his home or wants to develop certain hobbies, it is essential that he develop some manual dexterity.

Good coordination is another goal of Occupational Therapy. A newly blinded man must learn to combine mental, rather than visual, concepts with action. Elimination of useless groping and undirected movements is important. This is true of any newly blinded person. In the case of one Marine who was completely bewildered because of a severe brain injury, recovery of coordination was a long tedious process requiring many hours of patient instruction. Gardening was first used because of its relaxing effect and because it fosters broad movements. Later the same patient advanced to the stage of intricate lacing on leather projects.

Occupational Therapy aids in exploring the interests of a patient. It may uncover old job interests. It may present new job possibilities, as x-ray film developing has done for several patients, or it may develop a new hobby.

Occupational Therapy also assists the patient to realize that blindness does not mean incompetency. He learns that there are many complex skills he can master, that many of his previous interests can still be continued, and that he very likely possesses many potentialities of which he has been previously unaware. One blinded Marine, a Texas cowboy, had previously done much leather work as a hobby. Although he could not quite duplicate the type of work he had formerly done, he spent many hours on similar work projects, using a different technic. It is often an advantage for a patient to follow old skills so that he will feel a sense of continuity in his existence. One sailor, formerly a teacher, who required a long period of hospitalization, found that in doing x-ray work, retail stand work, and all types of shop activities, he possessed skills of which he had not previously thought.

Technically, one thinks of occupational therapy as any activity, mental or physical, which hastens the recovery or adjustment of a patient. However in a program so highly developed as the one for the blinded in this hospital, occupational therapy consists chiefly of shop work, wood work, and certain types of prevocational training. It may serve as diversion, for retraining, or as an introduction to vocational training.

Procedure

In most instances, the therapist's work began as soon as the patient had completed interviews with the Educational Services officer, the occupational therapist and the supervisor of work experience. A plan was laid out for his prevocational and vocational program. His interests, former occupations, education, and future plans were discussed in detail. The patient was then acquainted with the various shop activities from which he might benefit. He was encouraged to experiment with a variety of skills both familiar and unfamiliar.

For bed patients or those requiring extensive surgery, the therapist began her work on the ward. It was important to the morale of the patient that some form of activity begin early. During the hours of long, quiet waiting before the patient could enter into a full day's program, it was most important that his thoughts and activities be directed positively. Diversional therapy during this period was necessary.

A wide variety of activities is essential. In the first place, one has a highly varied group with which to cope: Farmers, college professors, factory and clerical workers, students, stevedores, and many others. To find some means of self-expression for each requires ingenuity and a diversity of facilities. Adjustment always remains an individual problem. Second, variety is necessary because one is attempting to do a complex job—that of exploring the patient's interests, developing his skills, coordination and sensitivity, introducing prevocational interests, and perhaps developing a hobby.

Leather work is particularly useful. Leather is traditionally masculine; in addition it appeals to the tactual and olfactory senses. and is therefore of special value for the blind. A first project, the construction of a link belt, for instance, is very simple and is accomplished in half an hour. Thus it never discourages the awkward and hesitant beginner. Success on the first venture is, of course, very important in order to establish self-confidence in the newly blinded.

One Marine, married and with a family, found considerable satisfaction in the hope that while attending college he can, as he says, "always make a few dollars on the side with leather wallets" if he needs to supplement his subsistence allowance. Another Marine wanted to continue leathercraft as a personal hobby. He prepared a set of patterns for a wide variety of items and has obtained the necessary tools. These products he expects to sell in connection with a roadside tourist camp and gas station.

Moreover leathercraft provides a definitely graded type of activity. Heavy materials and large simple projects, such as moccasins, are suited to the patient with little mechanical skill and undeveloped tactile sense. As he becomes more adept he can undertake intricate projects, using fine materials. Patients find that the holes used for lacing are similar in touch to the dots used in Braille. With little practice, attractive items suitable for gifts to members of the patient's family can be made. Not only does the patient gain satisfaction from doing something for others, but also the recipients gain concrete evidence that a blinded person can do useful work. And not least in importance is the fact that the patient participates in an activity very popular with sighted patients in the hospital, and gains experience in competing with the sighted world.

Woodwork is useful, practical, and develops mechanical skill. Often the patient has had previous experience in a school shop, on a job, or in repair work about the house, and continued practice in woodwork enables him to continue his role as handy man about his house.

Ordinary hand tools, with simple adaptations, are used. The blind do their own measuring with notched rules and squares. A triangular file, or a marking awl traced about a pattern provides guide lines for cutting. Special technics in hammering and sawing are explained.

Although blinded patients do not set the type, some enjoy using the hand press. Hospital forms and franked envelopes provide useful occupation. Personal letterheads and printed envelopes appeal to the patient as tangible evidence of a way of helping himself.

Some experience in gardening is recommended, particularly for those interested in outdoor work or for those who come from farms. Ordinary tools, especially adapted for the blind by a former instructor of Columbia University, have harness snaps welded on the various pieces. These are clamped on a taut wire stretched between metal stakes which can be moved from row to row. This arrangement allows for accurate spading, planting and cultivation. By allowing his ankle to follow along the wire as a guide in the early stage of planting, the patient can avoid stepping on other rows. Complete sets of these tools are given to patients who desire them. Aside from its practical value, gardening produces a very excellent therapeutic reaction.

The patients who seem to have gained the greatest benefit from this work were those who found it most difficult to adjust to their loss of sight. A Marine who had a severe head injury along with his loss of vision seemed to be lacking coordination, and was confused and unable to orient himself as to space. Working out of doors seemed to release much tension. Gradually he was able to work longer periods of time. Then he became accustomed to short periods in the shop and was able to handle more intricate tasks. Another patient who was under the care of a psychiatrist for some time, found gardening helpful in releasing some of the tension which stood in the way of his final adjustment. It has often been found very helpful in providing an outlet for emotional stress and strain. It also furnishes the genuine satisfaction of seeing things grow as a result of one's own efforts, and is an excellent escape from hospital routine and atmosphere.

Power equipment is especially useful for those who intend to follow some industrial line of work. The drill press is probably the most practical power tool for industrial use by the blind. Consequently, projects requiring the use of this instrument are introduced to the patient. Safe and easy to control, it gives self-confidence in the handling of a power instrument.

A Marine blinded on Saipan, who had formerly done sawmill work, roofing, and carpentry as his trades, found much satisfaction in constructing a shop partition, typing tables, and file boxes. Finding new ways of using familiar tools and using power equipment gave him a new lease on life. Shop work was followed by experience in an aircraft factory and a job in a marine hardware plant. The entire experience demonstrated to him both job possibilities and the ability to do maintenance work around his own home.

Other power tools commonly used are the power sander, the emery wheel, and the buffer. Kitchen knives made from heavy hacksaw blades are popular projects for the emery wheel. Rings and bracelets of deck steel, hand-sawed, are polished on the buffing wheel. Here, as with the drill press, the experience with powered equipment is probably more important than the projects themselves.

Metal bracelets and necklaces of coiled silver wire permit the more adept patients to develop their dexterities. Hammered metal projects, which depend entirely upon touch for accuracy, promote tactual learning.

Plexiglass projects encourage use of the foot-powered jigsaw, the coping saw, files, and drills. Plastic material, like leather and wood, appeals definitely to men. Again, the end result is the development of sensory learning, coordination and skills.

A Link trainer, formerly used for training aviators, has also proved to be of some value to blind patients. It aids in developing a sense of direction. Aside from this practical value, it is just plain fun to a boy's way of thinking. For a few patients who have had experience in aviation it has particular appeal. The trainer used by blind patients has had most of the instruments removed, leaving only the stick and foot pedals to be manipulated by the patient.

Weaving is another project offered patients if they have an interest in it. Perhaps a man has been a millworker or comes from a rural area, or is of foreign parentage where weaving has been a household art, or perhaps he has had some experience with it in camp work. There have been several cases of collateral arm or hand injuries which make some activities impossible; in these instances weaving is a satisfactory project because the end results can be worth while to the patient and because the method secures results quickly.

A sailor who had lost his left arm and who had never done any intricate work, having been a stevedore, found weaving rugs for his wife a genuine satisfaction in the early part of his program. Later when he became more skilled and self-confident he cooperated successfully in all types of shop work and worked in the retail stand. One obstreperous young Marine, who was extremely negative in his attitude, found weaving interesting because it had been a household art in his family. In these and other similar cases, weaving is encouraged. It is not stressed with most men, since it is felt that the average sighted man would probably not develop such a hobby.

Other miscellaneous projects are included to meet the needs of individual patients. Among these are work in code, elementary electrical wiring, motor repair, puzzle making, cords for bows used in archery, leather braiding, macrame knotting, bicycle repair, and greenhouse work. Most of the traditional shop activities for the blind, such as basketry and broom making, are never used.

X-ray film developing is a new venture for the blind that has proved successful. Experiments have been carried on through the efforts and suggestions of the officer in charge of x-ray service. Since this work is done in a dark room and is timed, no sight is necessary for the job. Braille markers on film racks and matching marked envelopes for the film are used. The blind technician uses an ordinary timer with the face covering removed and the numbers marked with dots. After the film is processed, it is hung on the rack to dry overnight and the following day films are replaced in the matching envelopes.

This project is particularly good in building up morale because the patient knows that he is taking over the job of a sighted person. It is a good example of the independence the blinded strive for. Not only does this activity have prevocational value, but also it teaches a patient to conform to a scheduled job. At present, three hospitals have employed these technicians. One of the best x-ray departments in the country is now operated by a patient trained in this hospital. He instructs other technicians as well as does the developing. Another discharged patient instructs technicians in a New York hospital. One of the present patients is combining training in typing from dictaphone records with x-ray work, with a view to returning to his former employer, a large railroad company, as a technician in the company hospital.

A stand, a subsidiary of the ship's service store, is operated for the benefit of those interested in retail service or a business of their own. This project is in charge of a hospital corpsman with extensive experience in operating a store. The stand provides training for six patients per day. The first three days are used in learning to operate the cash register. No bills of more than a dollar value are accepted by the blind clerk. Patients are extremely accurate in making change; in 1 month's business of $3,200 there was a discrepancy of only 95 cents between cash on hand and register figures. For the first 5 hours the patient does not receive any pay, as this is considered necessary apprenticeship. Following this he is paid at the rate of 40 cents per hour.

Daily time in the store for each varies from 1 to 3 hours. Three weeks' experience has been found to be a minimum time necessary to give a man a good over-all knowledge of the business. For those who have done advanced Braille work, there is an introduction to the system of bookkeeping. Stock is replaced in the store daily from the storeroom; about 110 items are handled. The store operates with a running stock of $500 and does a daily business of $150 to $200 during 5 hours each day. Not only does this training have definite therapeutic value, but it is an excellent prevocational training activity because of its usefulness in any locality.

A Marine from the Middle West who had two children and a wife could not be reconciled to the loss of sight, largely because he could not go back to his family with an adequate means of support. Pride would not permit him to depend on a pension. He rejected all suggestions and all attempts to get him to follow the rehabilitation program. When the stand was put into operation, however, he was anxious to be the first one to carry on the experiment. It seemed to him to be the ideal solution, since there were several industries in his home town in which stands would be very practical. Also the possibility of a small private business seemed to be a solution to his problem. His work in the stand was excellent. His entire attitude and outlook changed almost immediately. His appearance improved a great deal, because he felt the need to be well-groomed when meeting the public and because of his improved morale. Whether he finally goes into this type of work is not yet certain, but in the meantime it has been a temporary constructive solution to his problem.

A Marine from the same area who, on his first interview, had expressed a plan to go into business was given a chance to work in the shop. He felt that this was possible since an uncle who was blinded had been quite successful in a business of his own. The patient worked several hours daily, learning to operate the cash register, take inventory, replace stock, and keep records. He developed to the point of being able to operate the store without supervision. This experience proved to him that this was at least one way in which he could earn a livelihood.

Adaptation of maps and games, other than checkers and dominoes, is also the work of the Occupational Therapy Department. Braille relief maps of the city and the hospital help in the orientation of the patients.

Of the total of 157 patients, about 83 percent participated in Occupational Therapy. The amount of time varied greatly. One badly adjusted Marine, unwilling to cooperate to any great extent in other phases of the program, spent practically the entire day in the shop. Others spent only a short time. An hour daily was recommended for almost all patients. The following figures give some idea of the activities preferred: Leather 95 percent; woodwork 25 percent; stand operation 20 percent (not available in early part of program or it would be a higher percentage); x-ray 10 percent; weaving 5 percent; gardening 8 percent; metal 6 percent; miscellaneous 20 percent.

SUMMARY AND CONCLUSIONS

Occupational Therapy has played a part in rehabilitating most of the 157 blinded patients admitted to this hospital. Its method varies with different patients but always it serves as a stimulus to aid the patient by his own efforts to return to normal patterns of life and expression. His program aids in developing tactile sense, improves manual dexterity and coordination, develops hobbies, or starts prevocational training. A wide variety of activities is offered in order that individual needs may be satisfied. The product itself is important only as a means to an end. The important consideration is that both the patient and his family have evidence of his ability to maintain his independence. Occupational Therapy offers many concrete examples of this accomplishment. Patients are always urged by the therapist to participate in all phases of the program in order that their adjustment will be well-rounded. Education or additional vocational training is urged so that the patient may be prepared for a specific job in the future.

The program of Occupational Therapy is planned to aid the newly blinded individual to readjust and find new ways of establishing his independence. The objectives of the program and ways of accomplishing them are described, and methods used are explained. Activities, and cases of practical application, are discussed.

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Occupational therapy.

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